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Licensing Agreement Could Reach Millions in Royalties

licensing agreement to market revolutionary new materials made from recycled rubbers and plastics could return more than \$20 million to UMass Lowell over the next 10 years—and mean fewer junk tires littering the landscape.

The new materials use a patented technology invented by Dr. Joey Mead and colleagues in the Plastics Engineering Department and has been licensed to Re-Engineered Composite Systems (RECS) of

The UMass Lowell technology uses chemical agents to graft plastics onto the surfaces of rubber particles,

Odessa, Texas.



▲ J. Wayne Rodrigue, president of Re-Engineered Composite Systems (RECS) of Odessa, Texas, presents a check for \$25,000-the first payment of royalties—to Louise Griffin, associate director of the Research Foundation. Dr. Joey Mead, Freudenberg-NOK asst. professor of plastics engineering, developed the patented technology, now licensed to RECS.

leading to a new material with enhanced performance characteristics that can be used in injection-molded

At a recent ceremony and press conference, Mead said, "The work was technically challenging and I especially congratulate our former graduate student Helen Liu. It's important to find ways to use old tires that are also good for the envi-

The Chelsea Center for Recycling and Economic Development funded Mead's original research. The Center's Research and Development Grant Program funds projects that aim to overcome technical barriers to the increased use of materials that would otherwise end up in landfills as waste.

Continued on Page 5

New Process Makes Building Blocks from Ashes and Recycled Plastic

rof. Robert Malloy of plastics engineering has helped develop a new type of building block similar to a cinder block—that is composed of recycled plastic and coal-fired power plant ashes that otherwise would be trucked to land-

Malloy and a number of engineering students developed the technology in conjunction with civil engineers at Tufts University.

The new material, which has been used to make both building and landscape blocks, consists of 20 percent recycled plastic and 80 percent coal ash—or fly ash, as it also is known. When the plastic is melted and combined with the ash, the result is a solid material resembling a board or log. This "log" is ground into small chips called synthetic lightweight aggregate (SLA).

"This material is very lightweight compared with normal weight aggregate," Malloy says. "But we're not competing with normal weight material. We're competing with a commercial lightweight product, made from clay and water, that is also used to make building blocks."

Lighter weight blocks are desirable because people have to build things with them, and blocks made with normal weight aggregate are very heavy to lift.

Malloy and his associates have already moved their project from the lab to the manufacturing stage.

"We've gone from a laboratory scale of production to a pilot scale run, producing more than 10,000 pounds of SLA. We sent it to a block manufacturer for a production run of

Continued on Page 4

Prof. Robert Malloy holds a handful of synthetic lightweight aggregate made from coal ash and recycled plastic. This material can be used to produce building and landscape blocks like those seen in this photo.



Chancellor Hogan Addresses Campus Finances

raising faculty and staff for their performance, Chancellor Hogan assured the campus community in meetings last month that he will do everything possible in the present economically challenging times to keep the campus moving forward.

"The staff has performed well, and the campus looks better than ever," said the Chancellor. "The faculty has navigated changes over the past 12 years with dignity, style, and effectiveness. SAT scores are up, and Lowell is now looked at as a school of choice. For the first time in 12 years, we have a waiting list for the residence halls. We have a lot to be proud of-Lowell is in good shape."

"Thank you for your efforts," he continued. "We will honor our commitment to you."

Since 2001, the campus has lost the equivalent of nearly \$9 million, factoring in inflation. Through a combination of funds from the cash reserve and payroll reductions to date, Lowell has been able to stay on track and keep moving ahead with everything from infrastructure improvements to labs and computers. "Our hope is that state finances stabilize by fiscal year 2005," the Chancellor explained.

Across the country, the percentage of state budgets allocated for public higher education is going down everywhere except in the Southeast and Southwest. Looking ahead, the Lowell campus will have to rely more heavily on non-state sources of funding, including private fundraising, returns from commercial and intellectual property ventures, and continuing studies and corporate education offerings, especially via the Web.

Continued on Page 4

INSIDE THIS

SSUE

Lowell Teens Learn About Workplace Hazards

Discovery Series Fall Schedule Opens with Show by Grammy Winner

Service Centers Established Across Campus

CITA Conference Takes a Look at Health and Society

Six Professors Promoted, Honored at September Reception

Four Research Professors Join UMass Lowell Faculty

Takenote

Area Artists Open Their Studios to Visitors

Anyone who is curious about the new Artists District in downtown Lowell can get an inside look during the upcoming Open Studios weekend on Oct. 19 and 20, 10 a.m. to 3 p.m. This is an opportunity for artists to open their studios, sometimes located within their homes or in a building of studios, to display their artwork to friends, neighbors and potential customers. Visitors can enjoy a free, behind-the-scenes chance to meet an artist in his or her own work environment. Last year, more than 100 artists in 15 towns in eastern Massachusetts took part in the two-day celebration. Lowell studio maps will also be available at many locations around the city during the week of the event. The project is sponsored by Middlesex Beat, a regional arts journal. For information, contact Jodi Hays Gresham at (978) 937-8634 or (617) 876-0246 or jodiagresham@hotmail.com.

Alumnus Rick Pierro Will Speak at Forum

Rick Pierro, president and cofounder of Superior Controls in Plaistow, N.H., will speak at the Senior Executive Forum on Monday, Oct. 21. Pierro earned his master's in chemical engineering from the University of Lowell in 1983 and is now a member of the Industrial Advisory Board for UMass Lowell's Francis College of Engineering.

Superior Controls is focused on the application of computer systems and automation to pharmaceutical and biotech plants. The company, although not yet 10 years old, has



▲ Rick Pierro

grown to 27 employees—and at least six are Lowell graduates.

The presentation begins at 1:30 p.m. in Kitson 309. The Senior Executive Forum is a collaboration of the colleges of Engineering and Management to bring to campus top executives, who will share their insights on career paths and management issues in engineering.

Nobel Laureate MacDiarmid Gives First Tripathy-Endowed Lecture

Alan G. MacDiarmid, professor of chemistry at the University of Pennsylvania and Nobel laureate in chemistry, will deliver the first Tripathy-Endowed Lecture on Thursday, Nov. 14, in Alumni Hall, at 3:30 p.m.

MacDiarmid's topic, "Electronic Polymers: New Materials for the 21st Century," will draw on his research in conducting polymers, particularly synthetic metals—organic polymers

which exhibit the electronic and magnetic properties of metals but retain the mechanical properties of organic polymers. As MacDiarmid writes, "These remarkable materials, involving many completely



▲ Alan G. MacDiarmid

new concepts in chemistry and physics, have become known only during the past 18 years and present an enormous range of challenging synthetic, structural, physical and theoretical problems at all research levels."

The endowed lectureship honors the late Sukant Tripathy, professor of chemistry and founder of the Center for Advanced Materials. He was recognized as a world leader in research in the broad area of polymers in electronics and optics, and was awarded the 1993 Carl S. Marvel Creative Polymer Chemistry Award of the ACS Division of Polymer Chemistry.

Panel Discusses Hunger and Homelessness on Oct. 22

Mark Levine, director of Community Service, will moderate a panel and discussion titled "Shelter in a Raging Economy" in Coburn 205 from 1 to 3 p.m. on Tuesday, Oct. 22.

The event is part of the Greater Lowell Hunger/Homeless Week Program. Other participants will include Prof. Chris Tilly of RESD; Deb Chaussé, executive director of House of Hope; Mark Cote, executive director of the Lowell Transitional Living Center (LTLC); and Carolyn Haynes and Joe Meri, both residents of LTLC.

Light refreshments will be served.

Lowell Teens Learn About Workplace Hazards

hrough a collaborative involving UMass Lowell, seven Lowell teens used talent and teamwork to create a public service announcement warning their peers about workplace hazards. A rap written and performed by the 15-and 16-year-olds focuses on hot oil and slip-and-fall accidents in restaurants, a common employer of teenagers.

"Most of the time when kids work [and they get hurt], they don't tell anyone. They're afraid they might get fired. They don't have any support behind them," says Mini Nanybabong, 15.

Yesena Tores, 15, agrees, "[Teens] don't know how serious it is. The video will help them speak up."

"The project grew out of common concerns that young workers in particular are at risk for workplace hazards," says Project Coordinator Lenore Azaroff, of the Work Environment Department. A collaboration between the United Teen Equality Center (UTEC), Department of Work Environment and the Massachusetts Coalition for

Occupational Safety and Health (MassCOSH), the public service announcement is the last project in a three-year grant totaling \$162,000 from the National Institute for Occupational Safety and Health (NIOSH) to develop community-based, occupational health research with immigrants.

Over eight weeks, students were educated in a variety of workplace hazards and then selected hot oil as an area to focus on. The intention is for the students to bring what they learned to fellow students and others through the announcement, which will be aired on Lowell cable television. The students also learned collaboration, video production, leadership skills and empowerment.

"I learned all the safety things. Now, if I know something isn't safe, I can tell [my employer]," says Srey Shushi, 16.

The students hope adults watching the PSA will learn something too. "Workplaces need to be aware that people can be seriously hurt by hot oil," says Moses Baez, 15.



▲ Students from the United Teen Equality Center (UTEC) take a break after watching their completed public service announcement warning their peers about the hazards of hot oil in the workplace. From left, clockwise, Lenore Azaroff, project coordinator, work environment; Robert Chan, 15; Mini Nanybabong, 15; Yesena Tores, 15; Jennifer Cortiz, 16; Shawn Clod, 15; Gregg Croteau, executive director of UTEC; Srey Shushi, 16, and Moses Baez, 15.



Gavarini's Art Bends the Rules

■ Art Prof. Jehanne-Marie
Gavarini was a featured artist in
the "Delicate Surprise" exhibit at
the Room Gallery in Paris this
September. Gavarini's" Gender
Benders" consists of ordinary
objects reshaped in evocative

Trace

Exhibit Traces Changes in Lowell Over Past 25 Years

he photography and design team of Jim Higgins and Joan Ross have seen Lowell's dramatic revival close up since moving to the city in the late 1970s. Their documentary work has appeared in books, publications, and museum displays through the years. A new retrospective exhibition at the Mogan Cultural

Center brings together some of their best work from 1978 through this past summer. "Lowell: Moving Through a Quarter Century—People, Places, Preservation & the Park" opens Sunday, October 20 with a reception at 2 p.m. at the Mogan Center, 40 French Street (adjacent to Boarding House Park).

Sponsored by the Mogan Center, Lowell National Historical Park and the University, the exhibition offers a visual record of change over time as seen in the community, environment, Historical Park and other areas.



Dramatic before-and-after shots of familiar buildings and altered streetscapes illustrate the magnitude of change seen in the city. Lively portraits of local people at home and at work remind viewers of the social mosaic and how it has changed in 25 years. The exhibit will run through August 2003.

See a preview at http://ecommunity.uml.edu/25years. For more information, contact Mehmed Ali, Mogan Center coordinator, at (978) 275-1826.

National Trust Honors City for Excellence in Preservation

he National Trust for Historic Preservation presented its prestigious National Preservation Honor Award to the City of Lowell, Lowell National Historical Park, the Lowell Historic Board, the Lowell Plan Inc., Lowell Development and Financial Corporation, and the state Department of Environmental Management at its recent National Preservation Conference in Cleveland, Ohio. Lowell was singled out for the city's successful public-private partnership that has shown how preservation can be a key to downtown economic revitalization.

"The park's success has drawn extensive new investment in Lowell, but growth has not destroyed historic character," said Richard Moe, president of the National Trust. "More than 300 buildings have been rehabilitated to the highest standards to house new shops, offices and apartments. Lowell was always a working city, but preservation has given the phrase a whole new meaning: Lowell works."

"When a community acknowledges the great significant contributions of a past generation, it is wise to preserve it. Lowell does that through its citizens and local leaders, as well as many public and private partnerships," said Mayor Rita Mericer.

These awards are bestowed on distinguished individuals, nonprofit organizations, public agencies and corporations whose skill and determination have given new meaning to their communities through preservation of America's architectural and cultural heritage. Such efforts include citizen attempts to save and maintain important landmarks; companies and craftsmen whose work restores the richness of the past; the vision of public officials who support preservation projects and legislation in their communities; and educators and journalists who help Americans understand the value of preservation.

Other recipients this year include the Rhode Island Statehouse in Providence, R.I.; the Kwan Ti Temple in Mendocino, Calif.; and Union Station in Kansas City, Mo.

Worms Dig Big Business

he vermicomposting project at UMass Lowell is ready to hit the big time with an expanded operation and an ambitious business plan.

After a two year pilot project, which used more than 10,000 earthworms known as Red Wigglers to create high-quality, odor-free compost, the team is ready to launch a business known as Lowell Loam Ltd.

Headed by David Turcotte, project manager, and Julie Villareal, asst. project manager, both of the Center for Family, Work and Community, the team includes business consultant Bruce Fulford and has received funding from the Chelsea Center for Recycling and Economic Development, the Executive Office of Environmental Affairs (EOEA), City Soil and Greenhouse, and the University.

The worms are just the most colorful and interesting part of a large-scale composting project designed to take thousands of tons of organic material out of the waste stream, delivering valuable compost

"Generally, people have a negative image of composting because they equate compost with trash," Turcotte said at a project presentation this summer. "But now we can turn something we have that is a cost to municipalities into something that is productive."

The need is great. In Lowell alone, about 3,000 tons of yard waste is hauled away annually to a landfill. The city parks department could use the compost that is locally produced instead of expensive, water-soluble fertilizers that pose a pollution hazard to rivers and lakes.

"About 10% of all solid waste is organic and can be composted, instead of being sent to landfills..."

Gina McCarthy, asst. secretary of the EOEA, says, "We need to get the word out about the problem we're facing. About 10% of all solid waste is organic and can be composted, instead of being sent to landfills in Pennsylvania and Ohio. Nobody wants to live next to a landfill, but everyone wants good compost."

The business plan is to start small, first partnering with Aramark, the on-campus food service, to

provide food waste and cardboard as a feedstock for the worms. Vermicompost is of the highest quality because substances are more completely broken down and mineralized.

The second stage is a demonstration and education project to create a covered leaf-composting operation in a triangle at the edge of Riverview parking lot on South Campus. According to Fulford, this could handle 500 yards of yard waste per year.

Lowell Loam is also planning to partner with local farms in order to set up a largescale composting operation.

How does such a business

turn a profit? Revenue comes from tipping fees (for example, the University now pays about \$20,000/year for hauling and tipping yard waste), from the sale of

finished compost (the market ranges from \$15 to \$50 per cubic yard), and from the sale of vermicomposting supplies and kits.



▲ Lowell Mayor Rita Mercier, left, prepares to admire Red Wiggler worms dug out of the compost by Julie Villareal, asst. manager of the vermicomposting project at the Center for Family, Work and Community.

campus

Continued from Page 1

New Process Makes Building Blocks from Ashes and Recycled Plastic

both cinder blocks and landscape blocks. They were very pleased with the results," Malloy says.

With that encouragement, Malloy and his Tufts partners have applied for a patent on the aggregate, which would allow them to sell it on the open market as an alternative to other lightweight aggregate used in making blocks.

Coal-fired plants can generate up to 50,000 pounds of ash an hour. And, because there are no dumpsites in Massachusetts, it has to be hauled out of state, running disposal costs as high as \$100 a ton. So there would be a great incentive for plant operators to pay just a fraction of that amount to someone re-using the by-product locally.

"Technically, we've pretty much proved that this works," Malloy says. "The properties of the blocks are good. People are happy with that. It's just a question of economics."

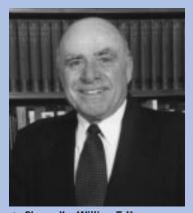
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Continued from Page 1

Chancellor Hogan Addresses Campus Finances

"Measured against our goals for 2005, we have reached 30 percent of our target in the three areas of non-state funding," said the Chancellor. "We are matching our peers in fundraising, but not in the area of cash that we can spend on campus operations. Six new companies have been developed through our commercial ventures project. We hold an equity position in five of them and look forward to these companies maturing before too long."

—РМ



▲ Chancellor William T. Hogan

Chalupka Named Academic Leadership Fellow

r. Stephanie M. Chalupka, associate professor and director of the undergraduate nursing program in the College of Health Professions, is one of 60 people nationwide to be named an American Association of Colleges of Nursing Academic Leadership Fellow.

Chalupka's designation recognizes her national leadership in envi-



▲ Dr. Stephanie M. Chalupka

ronmental health and nursing education. She is the author of several publications in environmental health, including the "Core Curriculum in Environmental Health for Nurses," a national nursing education outreach project funded by the Agency for Toxic Substances and Disease Registry (ATSDR). Her work in enhancing environmental health in nursing education has also been recognized by the National Institute of Environmental Health Sciences and the ATSDR as a national model for innovative teaching methods and excellence in environmental health

A faculty member at the Lowell campus for the last two years, Chalupka is an appointed member of the U.S. Public Health Service International Nursing Coalition for Mass Casualty Education and Environmental Health. She also holds an appointment as a visiting scientist in Occupational and Environmental Health at the Harvard School of Public Health.

Discovery Series Fall Schedule Opens with Show by Grammy Winner

iscovery Series Fall Schedule Opens with Show by Grammy Winner

"Music for Children and Gentle Hearts," a production by Grammywinning Tom Chapin and his band, will kick off the new season of the UMass Lowell Discovery Series, Oct. 6 at the theater in Durgin Hall.

A blend of instruments—guitar, autoharp, banjo and didjeridoo—the Chapin band invites participation at every level, delighting parents with its acute observations of family life while at the same time extolling—and magnetizing—the audience's children.

On Sunday Nov. 17, the Shangri-La Acrobats arrive direct from Taiwan—catapulting, clowning and juggling in a majestic exhibition of ancient Chinese culture. The program will feature acrobatics, Kung-Fu demonstrations and feats of daring and balance, as well as a

touch of indigenous comedy.

On Sunday Dec. 15, the holiday season will be heralded with the musical production of "Christmas Time is Here" by the six-person group Rhythm and Brass. The group's numbers range widely—from Duke Ellington and John Coltrane to a salsa rendition of "Santa Claus is Coming to Town."

The Discovery Series is designed for families, with multiple-show discounts as well as a choice of production times. It is sponsored jointly by Nancy and Richard K. Donahue; Enterprise Bank and Trust Company; the James L. Cooney Real Estate and Insurance Agencies; Community Teamwork, Inc; the Szechuan Chef Restaurant and UMass Lowell Athletics.

The Tom Chapin program will feature performances at 2 and 4:30 p.m. All other shows will begin at 2 and 4 p.m.and will run roughly an hour without intermission. The theater is handicapped-accessible with parking nearby.

For further information or to order tickets by phone, call the box office at ext. 4444.



New Campus Carpool Effort Goes Online

new online service that matches commuter students and staff with prospective rides to and from campus should help ease the UMass Lowell parking crunch, says Student Activities Director Mary Connelly.

The Ridefinder program, designed and installed online by Web Office workers Steve Gordon and Kareem Abuzhara, functions essentially as a bulletin board, matching students and staff from the University's surrounding communities in a campus-wide carpool effort. Those needing rides post their times and locations for departure and arrival on the Ridefinder Web site, while those answering the notices can expect to receive some monetary assistance with gas.

Connelly, who began advertising the program through word of mouth during student orientation, will continue her promotional efforts in student and staff publications throughout the fall.

"We're hoping this will benefit everyone, faculty and staff as well as students," she says. "If enough people take advantage of it, it could make a difference with some of the parking overflow."

For more information, or to post a notice on Ridefinder, go to www.uml.edu/ridefinder.

Continued from Page 1

Licensing Agreement Could Reach Millions in Royalties

RECS President J. Wayne Rodrigue spoke enthusiastically about the advances made since the agreement was signed eight months ago.

"We have proved commercial viability with volume production of 5,000 pounds of pellets per hour," Rodrigue said. "We have proved a product could be made within the existing manufacturing cycle time for

that product. And we've proved our presence in the marketplace.

"On the day we made our first product sample, we went from a nonexistent technology that was only a dream to an injection-molded product that is better than what was made before."

UMass Lowell will receive royalties on every product sold that incorporates the new technology-a large market potential that includes parts for household appliances, automotive parts, weatherstripping,

consumer packaging, hoses and seals, storage containers, parts of medical supplies, and parts of toys.

RECS has also committed to sponsoring research assistants at UMass Lowell, starting in the spring semester.

—*SS*



Engineering Dean Krishna Vedula, left, presents a memento of the occasion to Donald Spears, purchasing manager for Doskocil, the company that will sublicense the technology and produce products with the new material.

The new material, named Re-Poly™, is formed into pellets that blend high levels of elastomer (rubber) with plastic, without degrading the strength and other properties of the plastic. The sample gun case matches or improves on existing models.

'Wounded Leader' **Tells Principals'** Tales, Out of School



Assoc. Prof. Richard Ackerman, of the Graduate School of Education, recently signed copies of his book, Wounded Leader: How Real Leadership Emerges in Times of Crisis, at the Lowell Barnes and Noble bookstore, managed by Manya Callahan, left. "Through compelling stories that illustrate many of the common dilemmas faced by school leaders, the authors highlight the many paths to healing and show how sometimes the most painful experience can be an opportunity for growth," wrote one reviewer of the book, which Ackerman coauthored with Pat Maslin-Ostrowski of Florida **Atlantic University.**

Gartner Hosts Forum with MassHighway

Prof. Nathan Gartner, right, civil and environmental engineering, was the Lowell campus host for a forum this summer on new technology applications and partnership opportunities with MassHighway. The state agency had issued a request for ideas for Intelligent Transportation Systems (ITS) and held forums in collaboration with the University of Massachusetts to solicit ideas from the private sector and local governments. ITS is perceived as both a benefit to traffic management and to local economic growth, since it involves the deployment of high bandwidth telecommunication systems. With Gartner are Gaylord Burke, left, executive director of the Merrimack Valley Planning Commission, and Acting Commissioner John Cogliano of MassHighway.



Glass Harmonica Resonates With Students

◀ Glass harmonica player Alisa Nakashian-Holsberg, right, performed for more than 100 students in Durgin Hall with music Prof. Richard Strasser. The instrument, invented by Benjamin Franklin, has begun to reappear in music halls thanks to the renewed interest of musicians like Nakashian-Holsberg. The event was sponsored by the College of Arts and Sciences Board of Advisors.

Miller Gives Lively Talk on Career Choices in Engineering

eppering his talk with lively and contradictory assertions—"Engineers should never become business managers" "Engineers should definitely run businesses," "All business plans are crap."—and with personal anecdotes, Thomas Miller, vice president for Worldwide Business Development and president of the Molecular Imaging Division for Siemens Medical Solutions, presented the first of the Senior Executive Forum series.

Miller himself made the transition from engineer to business leader and has managed thousands of engineers through the same steps. Engineers he promoted now run businesses that are cumulatively worth more than \$7 billion.

But some engineers made the move and ruined their careers. So Miller detailed what skill sets engineers have that are antithetical to the world of business decisions. For example, engineers aim to understand the problem before acting and minimize uncertainty in their designs. In business decisions, however, one must live with ambiguity or the market passes one by. Miller, nevertheless, encourages making the transition.

"Engineers design something useful, that creates value and is worth more than the raw materials," he says. "The only way to fully accomplish this is with the power of being in a business leadership position, turning resources onto problems that can be attacked for the betterment of mankind."

Miller is a UMass Lowell alumnus in nuclear engineering.



Krishna Vedula, left, dean of the Francis College of Engineering, presents a memento to Thomas Miller, vice president for Worldwide Business Development and president of the **Molecular Imaging Division for Siemens** Medical Solutions, who gave the first presentation in the Senior Executive Forum series.

Service Centers Established Across Campus

ver the past few months, staff across campus relocated and reorganized to form campus service centers.

Centers are designed to improve services to students, faculty and staff, and have been timed to coincide with the implementation of the financials portion of the PeopleSoft system.

In a memo distributed in July, Chancellor William T. Hogan said, "Our goal in this matter is to continually improve our services on and off campus by providing support and coverage throughout the year."

The administrative redesign (ARD) process undertaken by the campus several years ago generated the idea of locating service providers in centrally-located offices. The majority of academic service centers, for example, are in college deans' office suites.



▲ The Commons, in Dugan Hall, is a service center that incorporates the offices of Undergraduate and Graduate Admissions and Student Records. Staff members of The Commons include, from left, Barbara Koumantzelis, student records staff; Leah Rigs, Angela Glaude and Dania Valdes, coordinators of Commons Admissions and Records Processing; and Linda Southworth, director of Graduate Admissions.



▲ Francois Toka, a teaching assistant in nursing, behind counter, left, got help from the staff members in the College of Health Professions Service Center (Weed Hall 103), who include work-study student Erica Baldasaro, and, in front of counter, Sally Healy, left, and Ann Marie Bird, both staff assistants.

"The expanded capabilities, security and functionality of PeopleSoft has enabled us to implement the service

center idea now," says Jeff Thompson, Chief Information Officer. Centralizing services helps provide consistent administrative support for all members of the University community. Center staff members are crosstrained in business practices relating to human resources, procurement, financial planning and reporting, services for students and adminis-

trative support.

Service center locations have been designed and reconstructed to provide pleasant environments equipped with updated electrical and telecommunications resources. Services can be requested face to face, by mail, telephone, fax and e-mail.

Earl Dotter Photo Exhibit Kicks Off at Boott Mill

ver the past 30 years, Earl Dotter has used his camera to capture the courage and spirit of Americans who work in essential, yet hazardous, professions.

Visitors to the Lowell National Historical Park's Boott Mill now have an opportunity to view a cross section of the Baltimore photojournalist's work at a two-month exhibit that kicked off Oct. 1. "The Quiet Sickness: A Photographic Chronicle of Hazardous Work in America"— cosponsored by the Patrick J. Mogan Cultural Center and the University's Labor Extension Program—is running through Dec. 11. It is free and open to the public daily from 9:30 a.m. to 4:30 p.m.

The exhibit features about 70 photos, with portraits ranging from coal miners to garment workers to medical professionals. It also includes photographs from "When Duty Calls: A Tribute to New York City Firefighters," in which Dotter honors those who lost their lives at the World Trade Center on Sept. 11,

"Earl's photography is incredible," says Charley Richardson, director of the Labor Extension Program, who is coordinating the exhibit with Susan

Winning, labor extension coordinator.

"Coal miners, health care workers, fishermen and firefighters face hazards, difficulties and, often, indignities. Earl certainly captures that in his images. They also have pride in their work and Earl captures that as well," Richardson adds.

Dotter describes his exhibit as "a 25-year chronicle of the individual cost in health and lives lost by those who perform essential, but often unnecessarily hazardous tasks, to make the U.S. economy one of the most production and profitable in the world."

"Quiet Sickness" derives its name from signs erected in a cotton mill community in South Carolina to alert visitors that victims of Brown Lung disease may be resting at any time of the day.

The Boot Mill exhibit is part of the Worker Photography Project, which is bringing together union workers and teenagers from working-class families to chronicle their lives with cameras. Dotter also is lending his expertise to two project workshops this fall.

Dotter is an Alicia Patterson Fellow, 1999-2000, and the 2001 recipient of the Alice Hamilton Award of the Occupational Health and Safety Section of the American Public Health Association.



▲ Photojournalist Earl Dotter, front center, greeted visitors at the opening of his Boott Mill exhibit with Labor Extension Program organizers, from left, Charley Richardson, Susan Winning, Judy Coughlin and Susan D'Amore. "The Quiet Sickness" runs through Dec. 11.

Other UMass Lowell co-sponsors of the exhibit and project are the Council on Diversity and Pluralism and the departments of Work Environment and Regional Economic and Social Development. Community group supporters include the Massachusetts Coalition for Occupational Safety and Health, United Teen Equality Center and Merrimack Valley Central Labor Council.

Hooray for TA/RA Training

here in the world is CLASS?
What does it mean to
"have a bad hair day?"
And why are American students
so outspoken (or are they rude)?

Two intensive day-long TA/RA workshops, sponsored by the Graduate School and the Council on Diversity and Pluralism, aimed to answer these and many other questions for 83 new teaching and research assistant graduate students. Topics included orientation to the University, the conditions of employment for grad students, U.S. mainstream values compared to those of other cultures, case studies and teaching tips-all included in a thick binder for

ready reference.

Chandrika Sharma, assistant director of Disability Services, and Julie Chen, assoc. professor of mechanical engineering, planned and directed the workshop, now in its second year.

"We discovered the need in a series of discussions with international students," says Sharma, who is co-chair with Chen of the Task Force on Campus Culture for the Council of Diversity and Pluralism. "The workshop has proved very helpful to them, and by equipping our grad students to be better teachers, we are helping the students at large."

Workshop presenters included

Dr. Sylvia Cowan from Lesley University, who spoke on diversity in the classroom; Noel Cartwright, director of the Counseling Center at UMass Lowell, on stress management; and Sharma, on time management.

Participants are hoping to hold informal monthly followup meetings.



A workshop for TAs and RAs helped introduce graduate students to the University, the cultural differences they will encounter and strategies for teaching. Among the sponsors, organizers and presenters were, from left, Prof. Anne Mulvey, director of the Center for Diversity and Pluralism; Dr. Sylvia Cowan of Lesley University; Chandrika Sharma, assistant director of Disability Services; and Julie Chen, assoc. professor of mechanical engineering.

SPLASH Students Celebrate Achievement

tudents at the Edith Nourse Rogers Middle School in Lowell celebrated their first year's achievements in aquaculture, assisted by visiting dignitaries and a grand spread of good things to eat.

Project SPLASH is an after-school program directed by Cheryl West, community consultant at the Center for Family, Work and Community. The students learn science and math through urban aquaculture, and also learn about diverse cultural practices that are connected to the growing and eating of fish.

SPLASH is funded for two years by the National Science Foundation, the Massachusetts Department of Food and Agriculture and the Lowell Public Schools.

"The program is expanding to include sites at the Greenhalgh Elementary School," says West. "We're also training new staff."

The program ran this summer and involved more than 50 students.



▲ Project SPLASH celebrated the end of the first year at the Rogers School with, from left, Cheryl West from UMass Lowell's Center for Family, Work and Community; Lowell Mayor Rita Mercier; Melissa Griffiths, director of environmental education for the Massachusetts Executive Office of Environmental Affairs; and John King, consumer science teacher at the Rogers School.



 Fifth-grade student Modesto Cruz, left, and seventh-grade student Eric Rivera, showed visitors the active aquaculture tank. Daily maintenance is required to raise tilapia successfully in an urban environment.

CITA Conference Takes a Look at Health and Society

lactors resulting in the turbulence of the past year; terrorism, economic insecurity, and unemployment among them, have combined to raise crucial questions about public health and what constitutes a healthy society. Researchers and activists from around the country will come together at UMass Lowell in November to examine these issues and offer solutions.

The sixth annual conference hosted by the Committee on Industrial Theory and Assessment (CITA) will feature 20 presentations covering an array of topics on health and human well-being, from the safety of work environments to how new technologies are restructuring the lives of nurses.

"While the conference has drawn presenters nationally, it is international in scope," says Prof. John Wooding, co-chair of CITA, "and it is looking at health in a variety of areas, from South America to Sweden."

The conference is broadening the notion of health to include a broad range of concerns: occupational health, economic health, environmental health, as well as individual and community health.

Wooding explains, "We'll show people how, on the regional and local levels, we can address these issues through preventive action, including medical as well as economic solutions."

The inclusion of Dr. David M. Ozonoff, the chair of the Department of Environmental Health at Boston University, is indicative of this wide-ranging approach. Ozonoff, who is also the principal investigator for the Superfund Basic Research Center at BU, has had a career characterized by interdisciplinary study and research. After receiving his bachelor's degree in mathematics from the University of Wisconsin in 1962, he went on to medical school at Cornell University Medical College in 1967, and earned his MPH from Johns Hopkins School of Hygiene and Public Health in 1968. Ozonoff researches the health effects on communities of various kinds of toxic exposures, especially from hazardous waste sites; new approaches to understanding the results of small case, control studies; and the effects of exposure misclassification in environmental epidemiology. He has been principal or co-investigator of a number of major studies of waste sites, including the Silresim Superfund site and a large case-control cancer studyton Otis Air Force Base.

Dr. Linda Silka, professor of Regional Economic and Social Development and co-director of the Center for Family, Work and Community, believes the conference will appeal to people from various fields including social scientists, healthcare professionals, community leaders, government officials, as well as students. Wooding and Silka are co-chairs of CITA and the conference. For registration information, contact conference coordinator Nancy Hodge at ext. 2897.

UMass Lowell and Local Teachers Connect on Technology

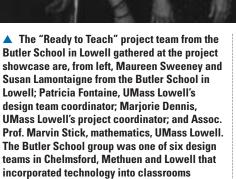
owerPoint presentations, video conferencing and iMovies have made their way out of the boardroom and into the classroom as students are becoming more technologically savvy and teachers are finding ways to integrate technology into coursework. One of those ways is UMass Lowell's "Ready to Teach" program, which pairs classroom teachers from Chelmsford, Lowell and Methuen schools with staff and resources from UMass Lowell.

As part of a three-year, \$1 million project funded by the U.S. Department of Education, teachers from the

Byam and Westlands schools in Chelmsford, the Butler School in Lowell, the Comprehensive Grammar School in Methuen and Methuen High School found innovative ways to use technology to engage students in learning. Each year, the cooperative teachers then present their case studies to Graduate School of Education students — who are studying to be teachers — to help prepare them

From first graders at the Byam School using software and the Internet to learn about weather to students at the Westlands School using interac-

> tive discussions and creating a Web page to study industrialization and immigration to a tenth graders at Methuen High School creating a documentary about the Lowell's involvement in the Vietnam War, the students (and teachers)



through the "Ready to Teach" program instituted

at UMass Lowell.



learned a variety of computer and other technologies that will serve them well in when they get to the

the shuttle 7

Note Worthy

Prof. Donn Clark of electrical and computer engineering has been

named a recipient of a President's Public Service Award in recognition of his work in the design and construction of technological devices that assist individuals with disabilities.



▲ Prof. Donn Clark

Clark is one of six faculty members throughout the UMass system to receive this award, which will be presented at a meeting of the Trustees' Committee on Academic and Student Affairs in Boston on Oct. 22.

Clark established the Assistive Technology Program at UMass Lowell more than 10 years ago to engage students in the design and development of technology to improve the lives of persons with disabilities. To support this work, he secured funding from the National Science Foundation and established an endowed Assistive Technology Trust.

Organizations helped by the program include the Perkins School for the Blind, the Anne Sullivan Center and the Kennedy Day School at Franciscan Children's Hospital.

Political Science **Prof. Frederick Lewis** participated in a "short course" on Comparative Constitutional Development at the annual meeting of the American Political Science Associa-

tion held recently in Boston.

Some weeks earlier, Lewis presented a paper on "The Quest for Certainty in Recent U.S. Constitutional Scholarship" at a meeting of the International



▲ Prof. Frederick Lewis

Society for Law and Semiotics. Some 30 international scholars discussed Contemporary Issues in the Semiotics of Law at the gathering held at and co-sponsored by the Instituto Internacional de Sociologia Juridica in Oñati, Spain.

Lewis also chaired a panel on "The Continuing Impact of September 11th on the Law and the Academy" at the annual meeting of the New England Political Science Association in Portland, Maine.

In addition to these activities, he continues to be cited in national journals in connection with his book, *The Context of Judicial Activism: The Endurance of the Warren Court Legacy in a Conservative Age.* A recent article in the *Duke Law Journal* cited him prominently.

Four students of **Assoc. Prof. Changmo Sung**, associate director of the Center for Advanced Materials, had five posters selected for professional recognition at a competition sponsored by the International Metallography Society in Quebec this summer.

The winners included three graduate students—Jamila Shawon,
Stephen Iadarola and Xianglin Li—
and one senior, Michelle Kearns.
Shawon was awarded first and second place in separate categories.
Iadarola and Kearns placed second in their categories, and Li won an honorable mention.

The competition, open to both students and industry personnel, dealt with research involving microscopy techniques for materials such as metals, ceramics and plastics.

Prof. William Goodhue of the Physics Department has been elected a scientific member of the Böhmische Physical Society in recognition of his work on ion-beam-assisted etching at the MIT Lincoln Laboratory and at UMass Lowell.

Founded in 1975, the Society promotes the advancement of knowledge of the interaction of particles with solids and encourages the exchange of information between scientists and engineers engaged in research or development. Scientific members are chosen for their contributions to the field of particle-solid interactions by independent, original research.

Work Environment staff member Mary Lee Dunn, who has conducted extensive research on the 19th century Irish famine, described the events of those years to Dr. Patricia Fanning's Irish

Studies class at Bridgewater State College recently.

Later this month, she will address the annual meeting of the Genealogical Society of Vermont on the same topic.



▲ Mary Lee Dunn

Dunn's research, which she is conducting for her master's thesis in Regional Economic and Social Development, concentrates on the tenants of Ballykilcline in Kilglass Parish, County Roscommon, who were forced out of Ireland after a rent strike and settled in Rutland, Vt.

This summer she provided information on the subject to a television producer whose crew was in Ireland to tape a show for The Discovery Channel. Called "Moments in Time," the program will deal with events that changed history. Dunn was in Ireland to preside over a meeting of the Ballykilcline Society. More recently, she was named historical advisor of the project.

A paper she wrote about the events in the Kilglass area has been published as a chapter in a new book, Ireland's Great Hunger. The book is a collection of papers presented at a conference at Quinnipiac University.

Asst. Prof. Caryn Cossé Bell of the History Department participated this summer in establishing a digital archive and Web site, The African American Migration Experience, for the Schomburg Center for Research in Black Culture at the New York Public Library.

Bell's narrative, "Haitian Immigration to Louisiana in the 18th and 19th Centuries," is designed to help researchers present and interpret this specific movement. She also was guest lecturer at the Schomburg's Summer Institute for Teachers to help elementary and secondary school educators use the site. In addition, she will be a contributing author to a Schomburg publication, The Encyclopedia of the African American Migration Experience.

Bell also presented the commentary at a panel session of the Berkshire Conference titled, "Mistresses and Ménagères: Ordering Gender and Race in 19th Century Louisiana."

With support from the University's Healey Grant, she also conducted research in France and New Orleans for her next book, an annotated translation of a French language memoir, *Souvenirs d'Amérique et de France*, written by "une Créole" (Mme. Hélène d'Aquin Allain) and published in Paris in 1883.

Prof. Mary Kramer and the English Department have received a grant from Educational Testing Services (ETS) of Princeton, N.J., to administer and assess material for use in future Advanced Placement exams.

UMass Lowell is one of 25 colleges and universities nationwide invited to take part in this program.

This summer, ETS invited Judge, Asst. Prof Jeannie Judge and Paula Haines, a visiting instructor, to Daytona, Fla., to read and score Advance Placement exams in English literature.

By the year 2010, one in four workers will be age 50 or above, according to The Conference Board, a nonprofit business membership and research organization for senior executives.

Prof. David Wegman, chair of the Work Environment Department, was a luncheon keynote speaker last month at a Conference Board symposium in Chicago that addressed issues related to this maturing of the workforce.

Wegman summarized concerns about the growing population of older workers, evidence that offsets stereotypes about older workers, and the potential to promote better organization to improve workplaces for all workers, and older workers in particular.

Prof. Sam Mil'shtein of computer and electronic technology has been re-elected for the December 2002 issue of *Who Is Who Among American Teachers* as a "teacher who made a difference."

Nominations may be made only by former and current students who themselves excelled by being on the National Dean's List. Since 2000, Mil'shtein has been listed as a Multiple Year Honoree.

Tom Estabrook project manager in The New England Consortium, gave a presentation on hazardous waste policy in the United States at a public health conference held earlier this year in Brazil.

Fifteen UMass Lowell researchers and health educators participated in the conference at the Bahian Medical Association at Salvador, Bahia. The purpose of the conference was to share ideas and experiences while building a network of health professionals, union activists and nongovernmental organizations.

Continued on Following Page

Lowell Mill Girls the Focus of Professor's

Mass Lowell sociology

resident scholar at the Women's

in May that profiled the lives of

Sarah Bagley—all from the

early Lowell mills.

looms.

three women who worked in the

The three young women—

surrounding communities, were

to operate the city's new power

at the Women's Studies Research

is currently revising, Technology,

Values and Society: Social Forces in

Technological Change.

Center, was drawn from a book she

Harriet Robinson, Lucy Larcum and

brought to Lowell in the early 1820s

Dr. Kolack's presentation, held

Studies Research Center at Brandeis

University, delivered a presentation

professor emerita Dr. Shirley

Kolack, named recently as a

Presentation

Six Professors Promoted, Honored at September Reception

ix UMass Lowell faculty members, all promoted within the last year to the rank of full professor, were honored Thursday, September 26 at a reception and dinner in the Cumnock Hall Trustees

Among those honored were three members of the Graduate School of Education—Lorraine Dagostino, James Carifio and Regina Panasuk-**Engineering Department members** George P. Cheney and James Sherwood, and Arts and Sciences Professor Ann Marie Hurley. The appointments of Dagostino and Carifio dated to 2001; all four others were promoted effective this fall.

Regina Panasuk arrived at UMass Lowell as an assistant professor in the Graduate School of Education in 1993, following a two-year stint as tutor and lecturer at UMass Boston and a

year as assistant professor at Salem State College. From 1986-90, she was assistant professor of mathematics at the Leningrad School of Education in Leningrad, Russia. She was appointed to the level of associate professor at the Graduate School of Education in Sept. 1999.

Lorriane Dagostino has been a member of the faculty at the Graduate School of Education, where she is active in the Language Arts and Literacy Program, since 1986. Prior to that, she served as assistant professor of reading education at the State University of New York at Oswego, New York and as an instructor in the English Department at Onondaga Community College in Syracuse. During the 1994 school year, she was a visiting scholar at Harvard Univer-

James Carifio arrived at the

University of Lowell as an assistant professor in the College of Education in 1987. For the six years prior to that, he served as executive director of management systems for the Massachusetts Board of Regents, where he was responsible, among other things, for the development of institutional management and information systems in public higher education. From 1976-'81, he was an instructor at Boston University's School of Educa-

James A. Sherwood arrived at UMass Lowell in 1993 as an associate professor. Prior to that, he had been assistant professor of mechanical engineering at the University of New Hampshire in Durham and a visiting scientist at two research laboratories at the Wright-Patterson Air Force Base in Dayton, Ohio. In his last several years at UMass Lowell, he has won a series of grants for the research and testing of collegiate and Major League Baseball bats and balls.

George P. Cheney came to the Lowell Technological Institute as an instructor in the College of Engineering in the fall of 1968, having recently earned his bachelor's and master's degrees in electrical engineering, also at Lowell Tech. He was promoted to assistant professor in the fall of 1976, and to associate professor of electrical and computer engineering seven years after that.

Ann Marie Hurley arrived as an instructor in mathematics at Lowell Tech in 1965. Prior to that, she was assistant biometrician at the Massachusetts Division of Adult Education. She was promoted to assistant professor in 1982, and rose to associate professor of mathematical sciences in the fall of 1993.

The six new professors were honored at the dinner by Chancellor William T. Hogan, who gave a brief address citing their promotions; Vice Chancellor Frederick Sperounis and the deans of the departments represented were also present at the event.



Promotions

William M. McAllister, electrician II in Physical Plant, from electrician I.

Appointments

Peter Casey, assistant athletic director for external affairs in Athletics, from vice president, Philadelphia Phantoms of the American Hockey League.

Raymond R. Durand, maintainer I in Athletics.

Irene Mohan, financial manager in Continuing Studies and Corporate Education, from general ledger accountant with Hitachi Computer Products in Waltham.

Sujit K. Tandel, postdoctoral research associate in physics (Research Foundation).

Geralda Villafane, maintainer I in Physical Plant.



▲ Lorraine Dagostino



▲ James Carifio



▲ Regina Panasuk



George P. Cheney



▲ James Sherwood



▲ Ann Marie Hurley

Continued from Previous Page

Asst. Prof. Shehong Chen has published a book, Being Chinese, весотипу Cninese American, that explores the ways by which Chinese in the United States transformed themselves into Chinese Americans in the period between 1911 and 1927.

Published by the University of Illinois Press, it describes how this identity transformation occurred in an environment of anti-Chinese immigration laws and practices in this country, and revolutions and wars searching for independence and modernity in China.

Chen says the book would be of ethnic history, multiculturalism, or related fields.

The Alzheimer's Association has awarded Prof. Thomas Shea a threeyear, \$240,000 grant to develop methods to counteract the consequences of folate deficiency in Alzheimer's

The work will be done in collaboration with **Prof. Eugene Rogers** of health and clinical sciences.

At its recent annual meeting, the award of appreciation for serving on giving presentations describing his research numerous times. Next month, Shea once again will deliver the keynote address on recent developments in the treatment of Alzheimer's disease at the association's Family Conference. He also will host a workshop for early stage victims of the disease.

On a different subject, research conducted by Shea and a former doctoral student, Jacob Yabe, has been featured in the problems guide for the upper-level textbook *Molecular* Biology of the Cell, which Shea describes as the "bible" for advanced cell biology courses.

Carol Barry, asst. professor of plastics engineering, supervises the research of senior Christopher Thellen, who took the top award for an undergraduate research paper at the Annual Technical Conference of the Society of Plastics Engineers (ANTEC), held this summer in San Francisco. Thellen is investigating nanomaterials that can be applied to barrier protection materials, such as food wrappers, that are also biodegradable, working at the U.S. Army Soldier Systems Center in

interest to anyone concerned with identity studies, immigration or

> association presented Shea with an its educational support staff and for

Four Research Professors Join UMass Lowell Faculty

he appointment this fall, for the first time at UMass Lowell, of four professors whose primary role is research, marks a landmark for the faculty-research mission of the University.

All four faculty members— Angelo d'Errico, Cynthia Lopez, Carlos Siquiera and Joel Tickner have received either one- or two-year contracts as non-tenure track research professors; their salaries will be funded entirely by grants. D'Errico, Siquiera and Tickner are connected to the Department of Work Environment, Dr. Lopez to the Department of Health and Clinical Sciences.

Their research projects are diverse but related. Sequiera is researching "the political economy of the work environment and its effects on the health and safety of the community." Tickner's research is on "innovative scientific tools and public-policy approaches to improve environmental and health decision-making in the face of uncertainty."

D'Errico's research project focuses on "the relationship between hazardous exposures in the workplace and disease occurrence in working populations", while Lopez' is aimed at "understanding the disparities in occupational injuries among healthcare workers."

All four will be free to teach one class—either graduate or undergraduate—per semester, though this is not required. The essential requirement, under the terms of the contract, is that "a research professor shall spend a majority of time" on research.

It is anticipated that the University will continue to seek the service of research professors as a complement to its teaching faculty.



▲ Angelo d'Errico



Carlos Siquiera



Joel Tickner

Carroll Appointed New Interim Fine Arts Dean

r. Charles Carroll, a UMass Lowell history professor for 36 years and former History Department dean, has been named interim dean of the College of Arts and Sciences Division

of Fine Arts, Humanities and Social Sciences. He replaces Dr. Nancy Klenewski, who retired at the end of last year.

His top priority in his new post, he says, will be the centralization of the services, into a single unit, for all 12 departments within the college. A second goal is to move toward an increased ratio of full-time to part-time faculty members, while a third will be the continued institution of the PeopleSoft system.

All this, he notes, will be in addition to the tasks of maintaining academic standards and preparing for upcoming accreditations.



▲ Dr.Charles Carroll

University Names New Assistant Athletic Director

eter Casey, vice president of the American Hockey League Philadelphia Phantoms, has been named UMass Lowell's assistant athletics director for external affairs.

Casey will be responsible for the marketing and promotion of the University's 17 men and women's sports, including the Division I ice hockey program. He will over oversee coordination of fundraising and solicitation activities in the athletics program and solicit corporate support.

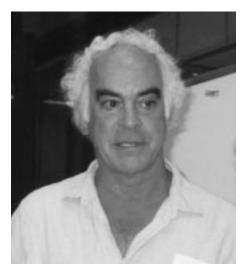
In addition to these duties, he will develop strategies to increase ticket sales and supervise all athletic booster activities.

A native of Hull and now a resident of Waltham, Casey is a 1993 graduate of Bowdoin College where he was a four-year starter on the football team. He also has a master's degree in physical education and athletic administration from Springfield College.



Peter Casey

Gross Opens the Books at Malden Mills



▲ Prof. Larry Gross of Regional Economic and Social Development presented his assessment of the corporate governance of Lawrenceís Malden Mills at the first Fall Seminar Series. Gross is working on a detailed history of the mills and has been given exclusive access to its business records. The series is presented by the Center for Industrial Competitiveness and RESD.

Lazonick Edits Economic Handbook



▲ Prof. William Lazonick of Regional Economic and Social Development has edited a new book, "The IEBM Handbook of Economics." Comprehensive and global in scope, the handbook recognizes the explicit centrality of business activity to the operation and performance of the modern economy.

The Shuttle is published by the Publications Office, UMass Lowell, One University Avenue, Lowell, MA 01854. Tel 934-3223

Vice Chancellor for University Relations and Development: Dr. Frederick P. Speroun Executive Director of Communications and Marketing: Christine Dunlap Editor: Mary Lou Hubbell Staff Writers: Geoffrey Douglas Paul Marion

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Rick Sherburne

The University of Massachusetts Lowell is an Equal Opportunity/ Affirmative Action, Title IX, H/V, ADA 1990 Employer.

calendar of Events

Saturday, Nov. 2

Football, vs. Merrimack College, 1 p.m., Cushing Field. For information, call (978) 934-HAWK.

Monday, Nov. 4

Lecture, "Third-Tier Cities: Adjusting to the New Economy," Beth Siegel, Mount Auburn Associates, noon, O'Leary Library, Room M, fifth floor. For information, call CIC/RESD (978) 934-2720 or 2900.

Thursday, Nov. 7

Women's Basketball, vs. Bentley, 2 p.m., Costello Gym. For information, call (978) 934-HAWK.

Thursday - Saturday, Nov. 7-9

Conference, "Approaches to Sustainable Regional Development: Supporting Public Health and a Healthy Society." For information, visit www.uml.edu/com/cita.

Friday, Nov. 8

Performance, STARTS (Student and Teacher Arts) program, "Mur Mur," performing arts for school field trips, grades 3-6, 9:30 and 11:00 a.m., Durgin Hall. Tickets \$5. For information and reservations, call the STARTS hotline (978) 934-4452.

Saturday, Nov. 9

Hockey, vs. University of New Hampshire, 7 p.m., Tsongas Arena. For information, call (978) 934-HAWK.

Tuesday, Nov. 12

Lecture, "Globalization, Resource Wars and Petro Politics," Prof. Michael Klare, Hampshire College, noon, O'Leary Library, Room M, fifth floor. For information, call CIC/RESD (978) 934-2720 or 2900.

Wednesday, Nov. 13

Exhibit Reception. "Dangling Participles," manipulated texts and projected abstract forms examining the role of mother within a culture, 2 to 4 p.m., University Gallery, McGauvran Student Center, Exhibit runs through Dec. 11. For information, call (978) 934-3491.

Thursday – Saturday, Nov. 14 – 16

Performance, "The Laramie Project," a play about the murder of Matthew Shepard and its aftermath, 8 p.m., Mahoney Auditorium. For information, call (978) 934-3950 or 4335.

Saturday, Nov. 16

Hockey, vs. UMass Amherst, 7 p.m., Tsongas Arena. For information, call (978) 934-HAWK.

Sunday, Nov. 17

Performance, Discovery Series, "Shangri-La Acrobats," 2 and 4 p.m., Durgin Hall. Tickets \$10, group discounts available. For information or tickets, call the Center for the Arts (978) 934-4444.

Monday, Nov. 18

Lecture, "China's Village Democracy Movement: Elections, the Party and Anti-Corruption," Prof. Rich Levy, Salem State College, noon, O'Leary Library, Room M, fifth floor. For information, call CIC/RESD (978) 934-2720 or 2900.

Performance, STARTS program, "The Shangri-la Chinese Acrobats," performing arts for grades 3-6, 9:30 and 11:00 a.m., Durgin Hall. Tickets \$5. For information and reservations, call the STARTS hotline (978) 934-4452.

Presentation, Senior Executive Forum, Gordon Lankton, president and chairman, Nypro, Inc., 1:30 p.m., Kitson 309. For information, call Dean Krishna Vedula's office (978) 934-2571.

Wednesday, Nov. 20

Exhibit Reception, Exhibit for proposals for UMass Lowell Commemorative Public Art Project, 2 to 4 p.m., Dugan Gallery. Exhibit runs through Dec. 11. For information, call (978) 934-3491.

Monday, Nov. 25

Lecture, "Building Research Partnerships in Diverse Communities," Prof. Linda Silka, noon, O'Leary Library, Room M, fifth floor. For information, call CIC/RESD (978) 934-2720 or

Performance, Faculty performance series, Wind Ensemble, David Martins, director, 7:30 p.m., Durgin Concert Hall. For information, call (978) 934-3850.

Monday, Dec. 2

Lecture, "Regions, Nations, and Globalization," Prof. William Mass, noon, O'Leary Library, Room M, fifth floor. For information, call CIC/RESD (978) 934-2720 or 2900.

Performance, Faculty Performance Series, Mixed Chamber Ensemble, David Martins, director, 7:30 p.m., Fisher Recital Hall. For information. call (978) 934-3850.

Tuesday, Dec. 3

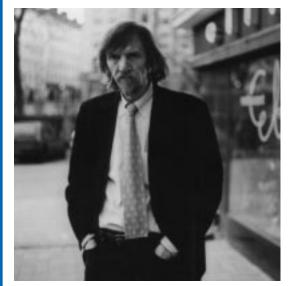
Performance, Faculty Performance Series, Small Jazz Ensemble, Walter Platt, director, 7:30 p.m., Durgin Concert Hall. For information, call (978) 934-3850.

Performance, STARTS (Student and Teacher Arts) program, "David Parker: the Pied Piper of Sign," a musical performance with singing and sign language for school field trips, grades

K-3, 9:30 and 11:00 a.m., Durgin Hall. Tickets \$5. For information and reservations, call the STARTS hotline (978) 934-4452.

Wednesday, Dec. 4

Performance, Faculty Performance Series, Chamber Orchestra, Kay George Roberts, director, 7:30 p.m., Fisher Recital Hall. For information, call (978) 934-3850.



Minkkinen **Exhibits His Body of Work in Boston**

✓ Prof. Arno Minkkinen, art, has an exhibit of his photography at the Robert Klein Gallery on Newbury Street in Boston through Oct. 19. The exhibit includes some self-portraits from recent years that The Boston Globe describes as the most intimate, and occasionally comical, parts of the show.

UMass Lowell Director Receives Environmental Award

cott Cassel, director of the Product Stewardship Institute, has received a national award for promoting pollution prevention initiatives.

Cassel received the Outstanding Member Contribution Award this month from the North American Hazardous Materials Management Association (NAHMMA) at its annual conference in Dallas.

Product stewardship is an environmental management strategy that advocates that whoever designs, produces, sells or uses a product takes responsibility for minimizing its environmental impact throughout its life cycle.

The two-year-old Product Stewardship Institute is a joint initiative between the University and the Massachusetts Executive Office of Environmental Affairs. The Institute represents nearly 50 local and state agencies that are working together to reduce the environmental impacts from consumer products, ranging from computers and televisions to fluorescent lights and paints.

Cassel has been a strong advocate for financial assistance to local governments to help increase the reuse and recycling of discarded

products. In particular, his award recognized the Institute's efforts to develop a collaborative solution with electronics manufacturers, retailers and environmental groups to increase the collection, reuse and recycling of used computers and televisions.

NAHMMA is comprised of experts from throughout the country who are committed to reducing the toxicity of the municipal waste stream by proper management of products that contain hazardous chemicals.



Scott Cassel

calendar of Events

Wednesday, Oct. 9

Exhibit Reception, "One Day at a Time," post-expressionistic paintings chronicling a year in the life of the artist by Bonney Goldstein, 2 to 4 p.m.; Gallery talk, 3 p.m.; University Gallery, McGauvran Student Center. Exhibit runs through Nov. 6. For information, call (978) 934-3491.

Lecture, "Microstructured Optical Fiber Devices Enabling Next Generation Light Wave Systems," Dr. Ben Eggleton, 6:30 p.m., Mill Conference Center, Wannalancit. For information, contact Bill Goodhue (978) 934-3785 or William_Goodhue@uml.edu.

Volleyball, vs. St. Anselm, 7 p.m., Costello Gym. For information, call (978) 934-HAWK.

Thursday, Oct. 10

Presentation, "The Professional Caregiver: Models for Communications at Life's End," Marianne Matzo, Ph.D., 6 to 8 p.m., (registration at 5:45 p.m.), Coburn 205. R.S.V.P. to Karen_Melillo@uml.edu.

Friday, Oct. 11

Performance, STARTS (Student and Teacher Arts) program, "Teddy Bear Jamboree," a musical production for school field trips, grades K-3, 9:30 and 11:00 a.m., Durgin Hall. Tickets \$5. For information and reservations, call the STARTS hotline (978) 934-4452.

Saturday, Oct. 12

Field Hockey, Alumni Game, 12:30 p.m., Cushing Field. For information, call (978) 934-HAWK.

Women's Tennis, vs. Bryant College, 1 p.m., Costello Gym. For information, call (978) 934-HAWK.

Football, vs. Stonehill College, 4 p.m., Cushing Field. For information, call (978) 934-HAWK.

Sunday, Oct. 13

Open House, 9 a.m., Tsongas Arena. For information, call the Admissions office (978) 934-3931.

Tuesday, Oct. 15

Resume Clinic for Students, career counselors review resumes and cover letters, information available about careers, job searches and

career fairs, 10 a.m. to noon and 1 to 3 p.m., Career Services, 200 Southwick Hall. Additional dates: Oct. 16, 17, 22 & 23. For information, call (978) 934-2355 or visit http://career.uml.edu.

Women's Soccer, vs. Southern Connecticut, 7 p.m., Cushing Field. For information, call (978) 934-HAWK.

Volleyball, vs. Bryant College, 7 p.m., Costello Gym. For information, call (978) 934-HAWK.

Wednesday, Oct. 16

Lecture, "The Commonwealth That Could Be: Lessons in Sustainability from Massachusetts and Other States," Prof. William Shutkin, MIT, noon, O'Leary Library, Room M, fifth floor. For more information, call CIC/RESD (978) 934-2720 or 2900.

Exhibit Reception, Wood and Mixed Media Sculpture by UMass Lowell alumnus Mark Heron, 2 to 4 p.m., Dugan Gallery. Exhibit runs Oct. 1 to Nov. 6. For information, call (978) 934-3491.

Field Hockey, vs. Bentley College 7 p.m., Cushing Field. For information, call (978) 934-HAWK.

Friday & Monday, Oct. 18 & 21

Workshop for Students, Job Fair Success! preparation for the Oct. 24 Career Fair, 10 to11 a.m. and 1 to 2 p.m., Career Services, 200 Southwick Hall. For information, call (978) 934-2355 or visit http://career.uml.edu.

Saturday, Oct. 19

Exhibit, Lowell Artists Open Studios, local artists show their work as part of a downtown exhibition, 10 a.m. to 3 p.m., Mogan Center, Art Room and Union Hall, 40 French St. For information, call (978) 970-5000 or visit www.middlesexbeat.com.

Women's Soccer, vs. St. Anselm, noon, Cushing Field. For information, call (978) 934-HAWK.

Volleyball, vs. Bridgeport, 1 p.m., Costello Gym. For information, call (978) 934-HAWK.

Men's Soccer, vs. American International College, 2:30 p.m., Cushing Field. For information, call (978) 934-HAWK.

Sunday, Oct. 20

Exhibit, Lowell Artists Open Studios, local artists show their work as part of a downtown exhibition, 10 a.m. to 3 p.m., Mogan Center, Art Room and Union Hall, 40 French St. For information, call (978) 970-5000 or visit www.middlesexbeat.com.

Exhibit, "Lowell: Moving through a Quarter Century," by Joan Ross and Jim Higgins, 2 p.m., Mogan Center, 40 French St. For information, call (978) 970-5000.

Monday, Oct. 21

Lecture, "Small Firms, the Informal Sector, and the Devil's Deal: What to Do about Social Policy," Prof. Judith Tendler, MIT, noon, O'Leary Library, Room M, fifth floor. For information, call CIC/RESD (978) 934-2720 or 2900.

Presentation, Senior Executive Forum, Rick Pierro, president and co-founder, Superior Controls, 1:30 p.m., Kitson 309. For information, call Dean Krishna Vedula's office (978) 934-2571.

Tuesday Oct. 22

Women's Soccer, vs. Stonehill College, 4:30 p.m., Cushing Field. For information, call (978) 934-HAWK.

Field Hockey, vs. Assumption College, 7 p.m., Cushing Field. For information, call (978) 934-HAWK.

Men's Soccer, vs. Merrimack College, 7 p.m., Cushing Field. For information, call (978) 934-HAWK.

Tuesday & Wednesday, Oct. 22 & 23

Performance, STARTS program, "Just So Stories," a musical production for grades K-3, 9:30 and 11:00 a.m., Durgin Hall. Tickets \$5. For information and reservations, call the STARTS hotline (978) 934-4452.

Thursday–Sunday, Oct. 24 – 27

Performance, "Dracula," presented by student Off-Broadway Players, 8 p.m., Mahoney Auditorium. For information, contact (978) 934-5024 or visit www.uml.edu/student-groups/offbroadway.

Thursday, Oct. 24

Career Fair, meet employers from Business, Engineering, Sciences and Technology organizations, professional dress requested, bring multiple copies of your resume, noon, Costello Gym. For information, call (978) 934-2355 or visit http://career.uml.edu.

Dinner Conversation,
"Teaching With Technology:
Something for Everyone,"
with Aram Karakashian,
moderator, Steve Gilbert,
president of the TLT Group,
Washington, D.C., reception
at 3:00 p.m. RSVP by Oct. 18.

For information, call the Council on Teaching, Learning, and Research as Scholarship (978) 934-2937.

Saturday, Oct. 26

Tour, Neighborhood Walking Tour, noted local photographer Jim Higgins will give a tour of Lowell's Downtown and the Acre, 10 a.m., Mogan Center, 40 French St., meet at the front door. For information, call (978) 970-5000.

Culinary Performance, food demonstration highlighting cooking in Sierra Leone, Brazilian and Cameroonian traditions, noon, Mogan Center, Art Room, 40 French St. For information, call (978) 970-5000.

Football, vs. Bryant College, 1 p.m., Cushing Field. For information, call (978) 934-HAWK.

Hockey, vs. Boston College, 7 p.m., Tsongas Arena. For information, call (978) 934-HAWK.

Monday, Oct. 28

Lecture, "Urban Development in a Regional Context," Gus Newport, Urban Strategies Council, noon, O'Leary Library, Room M, fifth floor. For information, call CIC/RESD (978) 934-2720 or 2900.

Tuesday, Oct. 29

Volleyball, vs. Stonehill College, 7 p.m., Costello Gym. For information, call (978) 934-HAWK.

Continued on Previous Page

Did you know...

that a total of 30 Air Force ROTC cadets attend the University?

For Extra Credit...

How many of those cadets are women?

Seven.

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